2005 Compliance and Enforcement Report

Environmental Services Division

IOWA DEPARTMENT OF NATURAL RESOURCES

Contents

Introduction

In 2005, the Iowa Department of Natural Resources (DNR) took a major step in its continuous efforts to improve our state's environment by improving its compliance and enforcement program.

Many times, environmental improvement comes as a result of an enforcement action. Enforcement must take place when people choose to circumvent the law or do not understand the full impact of their actions on our environment.

The Environmental Services Division (ESD) of DNR is charged with ensuring compliance with State of Iowa environmental laws and rules. The compliance portion of the division improves our environment through educating citizens and promoting awareness of the environmental impacts of our actions and awareness of applicable law.

In terms of the number of enforcement actions resolved, the amount of penalties secured, and most importantly, the amount of environmental improvement that will occur as the result of these actions, 2005 was a very successful year.

This report highlights the achievements of DNR's compliance and enforcement program for 2005. Important changes took place in 2005 relating to this program in both organization and process. These changes will be the base for improving public accountability and response, as well as agency efficiency.

In 2005, the DNR created the role of enforcement coordinator for each of its environmental programs. These enforcement coordinators make decisions and ensure consistency in enforcement with respect to each of the following:

- Animal Feeding Operations
- Air Quality
- Solid Waste
- Underground Storage Tanks/ Contaminated Sites
- Water Supply
- Wastewater

DNR staff established priorities for compliance and enforcement for each of these six programs, based upon significant impact of violations on the environment. Special emphasis was placed on compliance and enforcement in those prioritized areas. Statewide compliance in the priority areas should produce a noticeable improvement in the environment for all citizens of Iowa. DNR staff also spent considerable time addressing other compliance and enforcement issues.

To ensure an efficient and effective compliance and enforcement program, the DNR developed time-based performance standards. Time-based standards help ensure prompt treatment of any compliance issues or violations. The environment and the citizens of Iowa both deserve to have environmental violations resolved as quickly as possible to minimize adverse impacts.

Efficiency & Consistency for an Improved Environment

Enforcement Goals for 2005

The DNR used the Kaizen process methodology to reassess the compliance and enforcement program. The Kaizen process is a business management concept for rapid and continuous improvement. The focus is on long-term improvement. Current processes are inventoried, taken apart and put back together in a better way. The Kaizen event in which the DNR enforcement personnel participated was very successful, and many of the goals listed below originated from the Kaizen event.

There are four basic goals for ESD enforcement. These goals provide a basis for improvement on an overall program scale.

Goal 1

Determine priority areas for compliance and enforcement in each of the ESD program areas. This goal has been accomplished. Priorities provide short or medium-range focus for staff resources. This initial focus will enable more detailed reporting on environmental improvements in Iowa. Following sections of this report state the priorities of each of the ESD programs.

Goal 2

Create the role of enforcement coordinator* in each of DNR's ESD programs. This goal was also met in 2005. Enforcement coordinators are now working in each of the environmental program areas. This new responsibility has been added to current staff and allows for improved response and resolution of environmental compliance and enforcement issues and violations. The enforcement coordinators each specialize in a program area and ensure consistent and timely action to environmental violations.

Goal 3

The DNR determined that all appropriate enforcement should be taken within 24 months. This time period includes discovery and investigation of the violation by the field office or ESD program, preparing a referral to the Legal Services Bureau, and implementing the appropriate enforcement response regarding that violation (e.g., issuance of an administrative consent order).

Goal 4

Improve the process for collecting unpaid penalties. The DNR entered into a 28E Agreement with the Department of Revenue to provide additional means of collecting penalties, in May 2005. This 28E Agreement service was chosen because of the particular statutory collection powers available to the Department of Revenue. A penalty amount may be forwarded to the Department of Revenue for collections at any time, based upon the recommendation of the assigned DNR attorney. Referrals to the Department of Revenue have resulted in the collection of about $30,000 in penalty money owed from administrative orders in calendar year 2005.

1. *Joe Sanfilippo (Supervisor, DNR Field Office 1) – Air Quality
2. Jeff Vansteenburg (Supervisor, DNR Field Office 2) – Water Supply
3. Ken Hessenius (Supervisor, DNR Field Office 3) – Animal Feeding Operations
4. Dan Stipe (Supervisor, DNR Field Office 4) – Solid Waste, including open burning/ open dumping
5. Jim Stricker (Supervisor, DNR Field Office 5) – Underground Storage Tanks and Contaminated Sites
6. Dennis Ostwinkle (Supervisor, DNR Field Office 6) – Wastewater, Storm Water and Flood Plains.

OVERVIEW
by program

These priorities have been created to address the most significant compliance issues and environmental violations in each program. Establishing these priorities provides staff with a focus and a work plan to efficiently handle a heavy work load. These priorities were developed in 2005, and will be carried into 2006.

Following is a summary of each ESD program, and the compliance and enforcement priorities associated with that program.

Animal Feeding Operations

Iowa law requires that all manure from an animal feeding operation (AFO) be disposed so that it does not cause surface or groundwater pollution. All sizes of animal feeding operations must meet this requirement. AFOs include open feedlots and confinement feeding operations.

A manure release, including actual, imminent or probable discharge of manure from an AFO structure, must be reported to the DNR within six hours after it occurred or was discovered. Releases that must be reported include any that reach surface water, groundwater, a drainage tile line or intake, or a designated area resulting from storing, handling, transporting or land-applying manure.

Many of Iowa's AFOs must file a manure management plan (MMP) with the DNR. An MMP allows producers to plan their nutrient placement to optimize crop production and limit the leaching of nutrients. An MMP identifies the amount of manure being produced, the manure's nutrient concentration, the number of acres required for land application and the amount that will be applied to each available acre. Generally, an MMP is required for any confinement feeding operation with a capacity of more than 500 animal units.

The DNR field office staff members are experienced in responding to manure releases and may be able to help producers and manure applicators limit the extent of the spill or prevent extensive damage.

ENFORCEMENT PRIORITIES

1. **Fish kill/acute water quality degradation**. Manure spills and/or discharges that result in destruction of aquatic life, including fish, are a top priority.
2. **Serious water quality degradation**. Release of pollutants may result in degradation of an aquatic resource without an obvious fish kill, but the effect may be chronic pollution harming aquatic life.
3. **Unauthorized construction.** Construction of AFO structures (including open lots) without or contrary to a permit or other required documentation is also a DNR priority. Proper compliance with AFO siting and construction requirements are essential elements of the AFO program, which helps keep pollutants out of streams.
4. **Failure to submit MMP update**. MMPs are the cornerstone of the animal feeding program. The MMP helps ensure that any proposed or current confinement feeding operation over 500 animal units has adequate land to use the manure nutrients it produces.

Manure Management Plan Initiative

All confinement feeding operations constructed or expanded after May 31, 1985, with more than 500 animal units are required to file an MMP. By late 2003, the DNR had received approximately 3,500 MMPs. In an effort to obtain MMPs from all producers who needed them, the DNR offered a grace period, without penalty, for producers from September 2003 through March 1, 2004. DNR placed notices in local newspapers and several special interest farm publications. As part of the grace period, producers were informed that a $1,500 penalty would be assessed if the MMP was not filed by March 1, 2004.

During the grace period, the DNR received 1,694 MMPs. Following the grace period the DNR continued to receive MMPs from producers who came forward voluntarily without direct contact from the DNR. These producers were uniformly assessed a $1,500 penalty.

Because there was concern from producers and producer groups that producers who came forward on their own would receive the same penalty as someone the DNR had to locate, the DNR agreed to increase the penalty for the latter group. Accordingly, the DNR began to assess a penalty of $3,000 to producers the DNR had to locate. Across the state, DNR field offices and AFO program staff began to actively look for facilities that might need an MMP but had not filed one, and administrative orders were issued. In total, DNR issued 128 MMP orders in 2004 and 2005.

For the continued success of the AFO program, compliance with the MMP requirements is crucial. Although the majority of producers have now filed MMPs, the DNR remains committed to enforcing the MMP requirements.

IMPACT FACT

- Of the 128 MMP orders issued in 2004 and 2005 26 were appealed.
- During 2005, 40* appeals were set for contested case hearings.
- Of the 40 hearings:
  - 21 orders were affirmed at hearing.
  - 10 producers paid prior to hearing.
  - 8 producers defaulted and the appeals were dismissed.
  - 1 order was dismissed at hearing (97.5 percent success rate).
- Of the 40 contested cases in 2005:
  - Only 3 of the penalties were reduced at hearing.
  - Only 1 of the penalties was removed completely (90 percent success rate on full penalty).

As successful as the DNR was with the administrative hearings, it is the environment that is the real winner of the MMP initiative. At the end of 2005, the number of site MMPs submitted to the DNR had risen to 3,992.

*Some hearings were held on appeals filed prior to 2005.

Air Quality

The overall objective of the Air Quality Bureau is to ensure Iowa is meeting the ambient air quality standards established to protect human health and public welfare. This is accomplished through:

- Air quality monitoring
- Compliance assistance and enforcement
- Measurement of emissions from facilities
- Grant of pre-construction air permits
- Grant of major source operating permits
- Development of standards and regulations

ENFORCEMENT PRIORITIES

1. **Asbestos violations**. Asbestos violations at schools, hospitals and community centers are a top priority. Because these facilities gather large groups of people in enclosed spaces for significant periods during a day, the DNR is focusing resources to ensure these facilities meet state asbestos removal requirements.

2. **Major source and/or repeat air quality violations**. Violations meeting at least one of these criteria are a DNR priority:
   - At a major source, the violation relates to the pollutant for which the source is considered major (for example, particulate matter, sulfur dioxide).
   - Violation affects minor source status at a synthetic minor source.
   - Chronic or repeat violations.

About major source thresholds

The major source thresholds are the potential to emit:

- 100 tons per year (tpy) or more of any air pollutant (this may include fugitive emissions).
- The potential to emit 25 tpy or more of any combination of hazardous air pollutants.
- The potential to emit 10 tpy or more of any individual hazardous air pollutant.

About minor sources

To be exempt from major source requirements, sources with the potential to emit air pollutants greater than major source thresholds are required to take federally enforceable emission limitations and/or operation caps.

Asbestos in Quimby

In April, DNR received calls from concerned citizens regarding the demolition of an old school building in Quimby. The concern was the possible presence of asbestos in the building materials and the release of asbestos into the environment during the demolition work.

The DNR conducted an inspection for asbestos and the owner of the building called in an asbestos abatement contractor for advice. Samples were taken and analyzed and revealed the presence of asbestos-containing materials in roofing, window glazing, pipe-wrap, joint compound and paint texture.

To help mitigate the asbestos exposure to the air, the owner of the building was required to keep the materials wet during demolition so there was no visible dust. The debris was required to be taken to a landfill. Any salvageable materials contaminated with asbestos were also taken to a landfill.

The owner of the building shipped 693 tons of asbestos-containing materials to the landfill. Because DNR discovered violations of asbestos National Emission Standards for Hazardous Air Pollutants (NESHAPs) during this project, DNR issued a $10,000 penalty to the owner of the building.

Asbestos in Thomas Jefferson High School

Council Bluffs

On November. 29, 2005, a remodeling crew removed asbestos-containing floor tile from the auditorium while school was is session. The Superintendent of Buildings and Grounds for the high school realized that the tile contained asbestos, halted remodeling work, and cordoned off the area. The Superintendent then called the DNR to report the incident.

DNR personnel took samples, documented the debris, and had the area secured. The school administration took action to comply with the Asbestos Hazard Emergency Response Act, which includes wet-mopping of floors and isolating ventilation ducts to the contaminated area. Since the school was occupied at the time, quick action was necessary.

The asbestos debris was removed the next day and the hazard to students and staff was alleviated. The cost of the emergency abatement and clearance was approximately $6,400.00.

IMPACT FACT

Asbestos is a general name for a group of naturally occurring minerals composed of small fibers. It has been incorporated into a wide variety of building products due to its abundance, low cost, strength, flexibility and insulating qualities.

Asbestos is a hazard when small particles become airborne, are inhaled and deposited within the lungs. Increased incidence of several lung diseases and lung cancers have been observed in individuals who were persistently exposed to high levels of airborne asbestos in work environments.

The U.S. Environmental Protection Agency (EPA), through the DNR, regulates the general public's exposure to asbestos in buildings, drinking water and the environment.

Contaminated Sites

The DNR Contaminated Sites Section is responsible for contamination caused by a release of hazardous materials or hazardous waste products.

One portion of that section is devoted to brownfields. Brownfields are abandoned, idled, or under used industrial and commercial properties, where resale or redevelopment has been hindered by known or suspected environmental contamination at the site. With grant funding from the U.S. Environmental Protection Agency, the DNR can provide scientific and technical resources to assess environmental concerns at a brownfield, with the goal to move the site into redevelopment and reuse.

In 2005, the DNR assisted with the following brownfield initiatives:

- Four site assessments completed to determine soil and groundwater contamination extent and potential risk to public
- 82 acres of previously abandoned or under-developed property made ready for reuse and revitalization
- DNR efforts through the brownfield program have resulted in the creation of parkland, new housing, and site revitalization for new commercial and public use sites

ENFORCEMENT PRIORITIES

1. **Site Assessment**. The highest enforcement priority for the section is requiring a site assessment when the DNR possesses evidence of contamination at a site above standards. During this assessment, the extent of contamination is detailed and potential exposure pathways are identified.

2. **Site Cleanup**. Potentially unsafe exposures may exist at sites with contaminated soils or groundwater. Cleanup actions are needed to protect human health and the environment.

Charles City redevelops tractor plant

For more than 90 years, the tractor plant on the north side of Charles City helped drive the town. Now, concrete slabs and foundations are all that remain of what was once the heart of "America's Hometown."

Suspected environmental contamination kept away potential buyers and held back redevelopment projects at the 73-acre site after the plant was demolished in 1994.

"It sat there in limbo for a decade (after demolition) and people had the presumption it would be permanently idled because of perceived contamination issues. It was trashy, weeds growing, an eyesore," said Tim Fox, executive director of the Charles City Area Development Corporation (CCADC).

The DNR's Iowa Brownfield Redevelopment Program conducted a six-month investigation at the site, ultimately finding minimal contamination. The existing contamination could be properly addressed and not impede redevelopment, according to Mel Pins, coordinator of the DNR's brownfield program.

After contamination concerns were cleared, the CCADC assumed ownership of the site on April 1, 2005. The CCADC is currently working with the community to find the best redevelopment for the site. Proposed uses include manufacturing, office space, retail space and a national tractor museum.

IMPACT FACT

There are an estimated 4,000 brownfield sites in Iowa.

These include closed gas stations, former dry cleaners, and other small sites.

Most brownfields in Iowa are small, individual sites with real or perceived contamination from petroleum, solvents, asbestos and heavy metals like lead and mercury.

Solid Waste

The DNR helps Iowa citizens, businesses and communities create a cleaner environment and stronger economy through the sustainable use of natural resources. Effective waste management and pollution prevention activities are two proven strategies for meeting that goal. The Energy and Waste Management Bureau is the state's core agency for assisting Iowa businesses and residences with waste management goals, while regulating Iowa's solid waste facilities.

Properly managing waste streams is critical in protecting Iowa's land, water and air resources. To ensure environmental protection occurs, the DNR regulates solid waste facilities such as landfills, which are usually managed by cities and counties. Illegal dumping includes the improper disposal of solid waste through depositing, dumping or abandoning waste in ditches, along roadways and on others' property. Old tires, appliances, construction and demolition waste, and even hazardous chemicals are thrown into Iowa's waterways, dumped along waterways and discarded in remote or vacant areas of cities.

Educational Priority
It is a DNR priority to educate governmental entities in regard to illegal open burning. Local and county governments need to be kept up-to-date on laws and regulations regarding open burning. This education helps ensure the protection of Iowa's natural resources.

ENFORCEMENT PRIORITIES

1. **Open Burning.** It is a DNR priority to eliminate improper disposal of trade wastes, including open burning. Trade wastes are made up of waste resulting from trade, business, industry or commercial venture. Proper disposal will eliminate burning of these wastes, which helps improve or maintain air and water quality.

2. **Construction and Demolition Wastes.** Another priority is to ensure compliance with proper disposal of construction and demolition wastes by businesses. Construction and demolition debris is responsible for 16 percent, or 450,000 tons, of material landfilled in Iowa each year. This debris consists of materials such as wood, insulation, concrete, asphalt, brick, drywall, metal and shingles. Improper disposal can cause air and water pollution.

Open Dumping in Webster

On May 17, 2005, a complaint was filed regarding the demolition and open dumping of a house near North English. The following investigation revealed the property where the demolished house was dumped was in the town of Webster. The DNR photographed the site and informed the violator of the laws and rules regarding open dumping and disposal of solid waste.

On May 27, 2005, in response to another complaint, the DNR visited the site and discovered that the demolished house had been burned. To compare* the volume of solid waste, both before and after the burning of the house, DNR again took photographs. Pursuant to DNR's instructions, all solid waste left from the burning of the structure was removed and hauled to the nearest landfill.

*Result: The remaining solid waste was estimated at 33 percent of the original volume, pre-burned. Waste disposal receipts showed 16.4 tons of waste properly disposed at the landfill, post-burn. Because of these violations of Iowa's air quality and solid waste laws, the violator agreed to pay a $10,000 penalty to DNR.

IMPACT FACT

Statewide in 2005, approximately 9,008 tons of solid waste were taken to solid waste disposal facilities as a result of field office activities regarding open dumps.

In addition, approximately 88 tons of salvageable metal were removed from open dumps and taken to salvage operations.

Underground Storage Tanks

The Underground Storage Tanks (UST) Section is responsible for the regulation of UST systems used for the storage of regulated substances, primarily petroleum products. Staff in the section work with the site owners on the detection, prevention and correction of releases of products from USTs.

ENFORCEMENT PRIORITIES

1. **Failure to report a suspected release**. Priority will be given to responsible parties that fail to timely report a release or suspected release or fail to take corrective action upon learning of such potential or actual release. Prompt report of a release can reduce or halt the spread of contamination.

2. **Operating USTs without an approved financial responsibility mechanism**. The ownership and responsibility for USTs requires demonstrated financial responsibility to ensure adequate resources in the event of a leak. Maintaining proper financial responsibility and providing proper notification can reduce liability and allow insurance coverage in the event of a leak.

3. **Permanent closure of UST systems**. Proper closure of USTs no longer in use helps minimize potential contamination and may reveal the necessity for remediation, which is best addressed at the time of removal of a system.

4. **UST operation and maintenance violations.** To reduce contamination, responsible parties must follow laws and rules regarding the operation and maintenance of USTs. Failure to comply with these laws and rules can result in increased risks of releases and the failure to respond to a release once it occurs.

UST Owner Responds to Orders

The DNR issued 11 administrative orders to a major convenience store owner/operator and which applied to a number of UST facilities. The orders alleged violations including:

- Failure to adequately conduct leak detection at the level that its USTs were routinely filled.
- Record keeping violations.
- Failure to conduct three-year corrosion protection tests.

The owner appealed and the DNR entered into a settlement agreement in which the owner agreed to pay a total penalty of $40,000. The owner responded to the orders by offering and implementing an improved internal compliance management system and agreed formally to conduct a review of all its UST facilities in Iowa to determine compliance with corrosion protection testing rules.

IMPACT FACT

UST Inspections

The DNR's UST Section and Field Services and Compliance Bureau has improved compliance at UST sites by increasing inspections:

- FY 2004: 563 inspections, 55 percent compliance rate.
- FY 2005: 1,024 inspections, 65 percent compliance rate.
- FY 2006: 71 percent compliance rate.

The FY 2006 goal is 1,200 inspections. After nine months, the DNR has completed 948 inspections.

Tank Management Fee and Financial Responsibility

By law, owners and operators of USTs over 1,100 gallons are required to pay annual tank management fees and attach annual tank tags to the fill pipes of each tank.

These tags are not issued unless owners and operators have submitted proof that a "financial responsibility" mechanism is in place and the tag fee is paid. The common financial responsibility mechanism is insurance, and is required to provide coverage for corrective action and third party liability in the event of a UST system release.

Withholding tags has been effective in enforcing financial responsibility requirements. It is illegal to deposit or accept fuel into USTs that do not have current tags affixed. The DNR queries its database at regular times to identify expired insurance coverage. The DNR then informs these entities that they are not allowed to operate USTs without insurance.

Underground Tanks

Leaking Underground Storage Tanks

The LUST section assesses sites where leaking underground storage tanks (LUST) are located, or have been located. The process of assessment uses risk-based corrective action (RBCA). The objective of RBCA is to evaluate the risks posed by contamination to human health, safety and the environment using a progressively more site-specific, three-tiered approach. All proposed corrective actions must be submitted and supervised by a certified groundwater professional.

ENFORCEMENT PRIORITIES

1. **Free Product Assessment**. Responsible parties are required to initiate free product assessment and interim recovery upon discovery of a release. An assessment plan must then be submitted to the DNR. Priority will also be given to failure to implement a DNR approved active recovery system. Note: "free product" refers to a regulated substance that is present in a non-aqueous phase liquid (for example, liquid not dissolved in water).

2. **Corrective Action Design Report**. Where a site has been classified as high risk, the responsible party must timely submit a corrective action design report, complete a Tier 3 work plan, or participate in DNR corrective action design meetings.

3. **Remediation Assessment**. Failure to implement a remediation assessment or work plan is a DNR priority. Special priority consideration will be given to sites with known impacts to high risk receptors, such as plastic water lines, sewer lines or wells.

4. **Risk Based Tiered Site Assessment**. Failure to initiate and complete a risk based tiered site assessment is another priority. Special priority consideration will be given to sites with "historical" contamination, or recent releases, where no prior site assessment has been completed.

5. **Tiered Assessment Report**. The DNR is also focusing on parties that fail to complete and obtain approval of a tiered assessment report. Priority consideration will be given to those situations where assessment deficiencies are such that a reliable risk classification cannot be made.

Leaking Underground Storage Tanks

The DNR issued an administrative order to an owner/operator of a UST facility and assessed a $10,000 penalty for operating the USTs without an approved form of financial responsibility. The party appealed. As part of a settlement, the DNR agreed to stipulated penalties which provided for a monetary payment of $1,500. In the settlement, DNR offered that the balance of $8,500 could be credited by replacement of old USTs with a new double-walled UST system, new leak detection equipment, and timely installation of a remediation system to clean up pre-existing contamination. The party replaced the USTs and installed the remediation system.

IMPACT FACT

The DNR initiated a Kaizen event in July 2004 to evaluate and improve the process of cleaning up "high risk" sites or reclassifying to a lower risk classification. This Kaizen involved the DNR, groundwater professionals, private and public funding sources, trade associations and owners and operators of USTs.

The group designed a collaborative process in which the responsible party, that party's certified groundwater professional, DNR technical and legal staff, and the funding source meets. This group addresses all outstanding issues and agree in a "memorandum of agreement" (MOA) on remediation technology, technical activities, funding and a schedule for implementation.

This is a significant departure from traditional regulatory processes and a significant investment of time by all parties. The goal is that these complex technical, legal and financial decisions will be discussed, negotiated and resolved "across the table" with all the stakeholders having a clear understanding of the project's outcome.

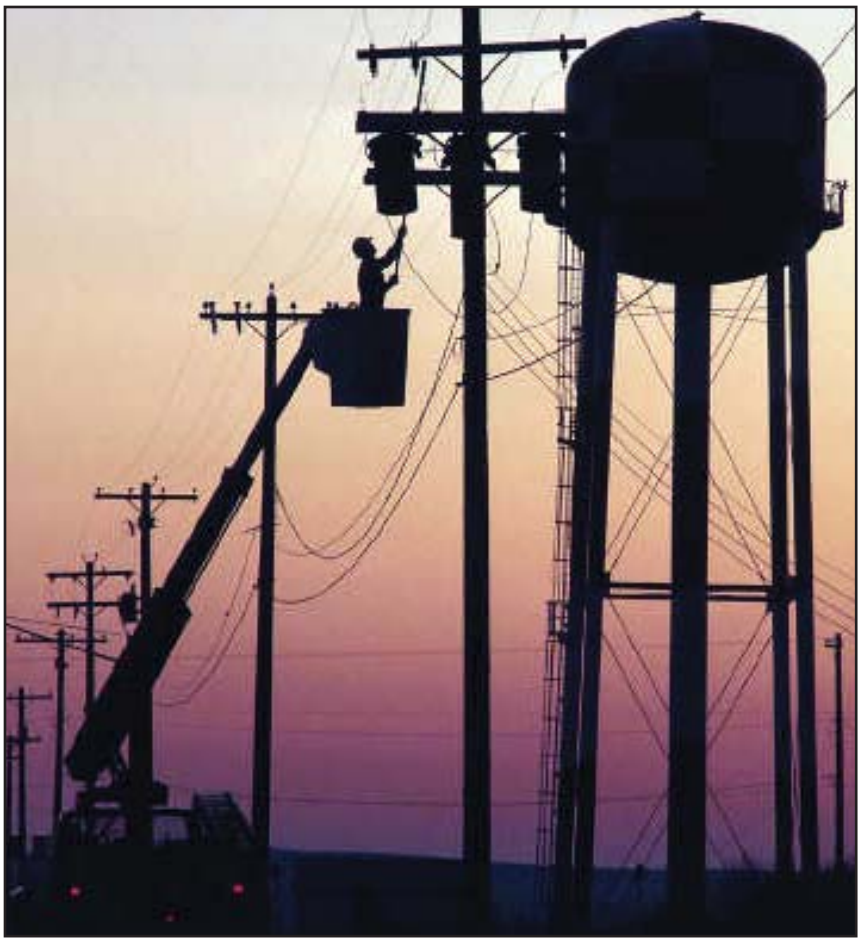
Since July 2004:

- 511 conferences held dealing with 388 high risk sites.
- 269 MOAs negotiated.
- 65 site issues resolved without MOAs.
- About 100 sites agreed to a more site-specific analysis to show that high risk conditions are not present.
- Expedited soil excavations at 115 sites.
- About 86 sites have approved remediation systems.

Water Quality Bureau

Water Supply

The Water Supply Section of the DNR Water Quality Bureau is responsible for a diverse group of drinking water programs. These programs include private wells and public water supplies (PWS), which are systems that have at least 15 service connections or regularly serve 25 or more people.



ENFORCEMENT PRIORITIES

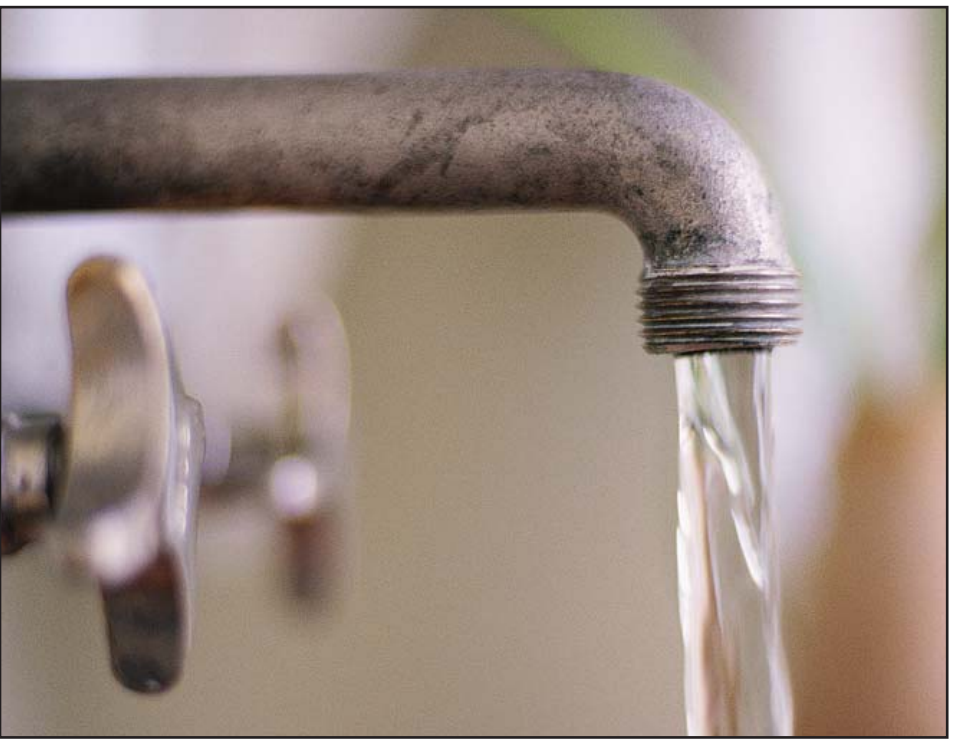
1. **Acute maximum contaminant level (MCL) violations**. An acute MCL indicates an immediate threat to health and human safety.

2. **Failure to monitor violations**. By failing to monitor a drinking water supply, health and human safety are at risk. If a water supply does not monitor, there is no information on whether or not the supply is safe.

3. **In-progress construction without a permit.** It is essential that there is a permit prior to construction of a water supply. A construction permit ensures that the construction standards are being met to protect health and human safety.

4. **Cumulative non-acute MCLs**. Ongoing violations of a non-acute MCL indicates a long-term threat to health and human safety.

5. **Operator certification compliance**. The purpose of the water operator certification program is to ensure that water and wastewater system operators have sufficient knowledge and experience to properly operate the systems, and in turn protect health and human safety and the environment. Failure to have a certified operator is a long-term threat to health and human safety.



Orders Show Importance of Permits

The mission of DNR's Public Water Supply (PWS) Program is to protect and enhance public health and safety, and the quality of life for all persons by ensuring drinking water quality is monitored on a routine basis. In addition, the program ensures PWSs are designed, operated, and maintained to minimize the possibility of contamination.

A regional utilities association agreed to the issuance of three separate administrative consent orders in 2005. These orders were issued due to the initiation of construction of public water supply projects prior to obtaining the construction permits required for the projects from the DNR. The enforcement action was initiated due to the importance of applying for and receiving the construction permit from the DNR Water Supply Engineering Section *before beginning construction*. Such review is needed so the DNR's engineers can make sure that the project meets design standards and that there is no adverse impact to public health by the construction.

IMPACT FACT

In 2005, Iowans continued to have safe drinking water due to the efforts of Iowa's public water supplies and DNR assistance and oversight.

PWS sanitary surveys were conducted at 459 facilities statewide with over 3,400 operator assistance contacts. The DNR also responded to 159 acute MCL violations. The DNR wrote more than 1,900 water supply permits outlining the sampling and operational monitoring requirements necessary to ensure safe drinking water.

As has been the case for over 20 years, there was no documented waterborne disease outbreak in a PWS in Iowa in 2005.

PWS Sanitary Surveys: 459

DNR Responses to Acute MCL Violations: 159

PWS Operator Assistance Contacts: 3,402

Water Supply Permits Issued: 1,924

Documented Waterborne Disease Outbreaks: 0

Water Quality Bureau

Wastewater

Exceeding effluent limits and bypassing treatment can seriously impact a stream or lake. The Water Quality Bureau's goal is to reduce the number of these violations to ensure future water quality and long term environmental improvement.

Federal and state law requires wastewater treatment facilities to meet effluent limitations for pollutants found in the effluent discharged from the facilities. The three main pollutant parameters are carbonaceous biochemical oxygen demand (CBOD5), total suspended solids (TSS), and pH. CBOD5 is the five-day measure of the amount of dissolved oxygen required for the decomposition of organic materials. TSS is the measure of the amount of solids that remain suspended after treatment. The term pH is the measurement of the relative acidity or alkalinity.

These parameters are considered the standard secondary treatment pollutant parameters that all publicly and privately owned domestic sewage treatment works must meet.

Limits for these pollutants are included in the National Pollutant Discharge Elimination System (NPDES) permit that the DNR issues to a wastewater treatment facility. A facility is required to have an NPDES permit to discharge to a water of the state. If the wastewater treatment facility cannot meet the effluent limits in its permit, it is required to upgrade or to construct new facilities to meet the effluent limits. Administrative orders are issued to facilities to create an enforceable schedule to upgrade existing facilities or construct new facilities.

ENFORCEMENT PRIORITIES

1. **Significant wastewater effluent violations**. These violations occur when a wastewater treatment facility significantly exceeds its monthly average permit limits. For example, if a wastewater treatment facility exceeds its monthly average permit limit for various pollutants (e.g. zinc, total suspended solids) four out of six months, DNR will consider that facility to have significant effluent violations.

2. **Bypass events.** Wastewater treatment plants are designed for two basic purposes: to speed up the natural purification processes that occur in rivers, lakes, and streams; and to reduce pollutants that may interfere with these processes. When wastewater treatment facilities are "bypassed," the waste is not treated before it is deposited directly into a body of water. Chronic bypass events are a priority for enforcement.

Small Towns Make Upgrades

In 2005, the DNR entered into consent orders for the upgrade of wastewater treatment facilities in a number of smaller Iowa communities. Orders were agreed to with the cities of Coin, Delta, Irwin, Lester, Manning, Pisgah, Villisca and Wadena. In these orders, the communities agreed to upgrade their wastewater treatment facilities to meet permit effluent limits or to correct facility deficiencies.

The orders contain schedules for the cities to upgrade their facilities. The cities agreed to stipulated penalties that would be imposed on the cities in the event that the schedules are not met. The stipulated penalty provisions were included to encourage compliance on the part of the cities to meet the schedules in the consent orders. Many of these communities had experienced long term compliance problems with meeting the effluent limits in their permits.

The City of Macksburg agreed, in a consent order, to the construction of a wastewater disposal collection system to replace septic tanks, with unauthorized discharges, in the community. The failure of the septic tanks had been a long-standing environmental problem in the community. The City has received a Community Development Block Grant (CDBG) and commitment for USDA Rural Development financing to complete the project.

IMPACT FACT

Many communities borrow from the Clean Water State Revolving Fund (CWSRF) to fund wastewater treatment facility improvements.

The loans can be used by cities and sanitary districts to finance the design and construction of almost all publicly owned wastewater treatment and conveyance improvements.

The Iowa CWSRF has loaned more than $500 million for wastewater and water quality projects. Cities have received 303 low interest loans since 1990. The current interest rate is 3 percent for publicly owned treatment works. The DNR is accepting applications for future loans.

Water Quality Bureau

Storm Water

The intent of the storm water program is to improve water quality by reducing or eliminating contaminants in storm water. Storm water is runoff from rain storms, from snow melt, and from surface runoff and drainage.

Most construction activity that disturbs one or more acres of land must be covered by a storm water permit before any soil is disturbed at the site. Industrial and commercial activities that are classified as having "storm water discharge associated with industrial activity" are required to obtain permit coverage.

Many cities and universities in Iowa are required to have permits for their Municipal Separate Storm Sewer Systems (MS4s). Determining which cities and universities are required to obtain MS4 permits involves a combination of population, proximity to large, urban areas and water quality of receiving streams. These permits require cities: to implement measures to reduce pollutants in storm water from illicit discharges and construction sites; to provide public education and allow public participation; to minimize pollutants from municipal operations and to address post-construction runoff. The DNR is currently issuing permits to these municipalities.

ENFORCEMENT PRIORITIES

1. **Failure to have a permit.** No storm water construction permit or failure to renew a permit. A permit for storm water discharge applies primarily to industrial and commercial facilities and activities. Contaminants introduced in storm water runoff or into storm sewers may impact drinking water sources, waters protected for recreation, and waters protected for aquatic life as well as other beneficial uses.

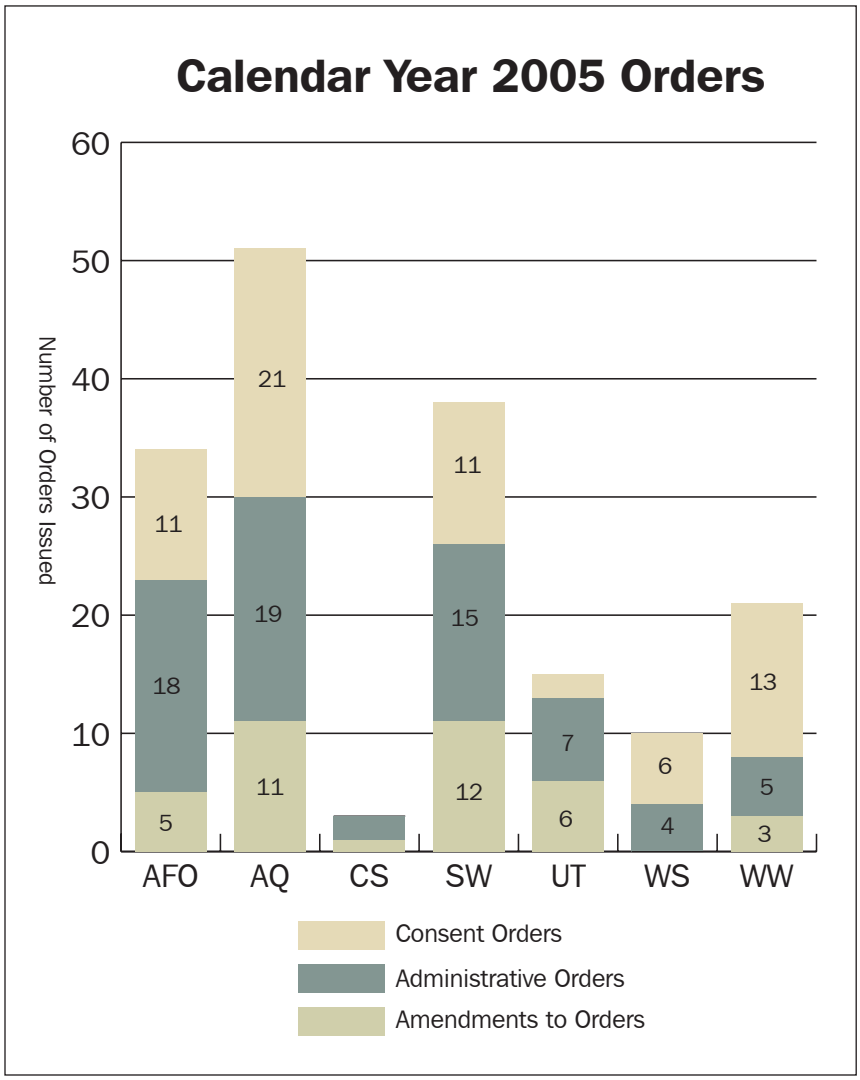
2. **No Storm Water Pollution Prevention Plan.** A SWPPP is a fundamental requirement of a storm water permit. The plan identifies potential sources of pollution, describes practices to reduce pollutants, and helps assure compliance with permit conditions (when properly designed and implemented). Monitoring and enforcing compliance with SWPPP requirements is a priority for 2005–2006.

Legal Bureau

The Legal Services Bureau supports the ESD programs in compliance and enforcement efforts. The legal staff prepares enforcement actions against violators of the state's environmental laws. The bureau is committed to streamlining processes and improving customer service. This includes reducing the amount of time a case is in the bureau. Citizens should notice an improvement in how quickly cases are resolved.

Cases referred to the Legal Services Bureau are resolved in one of three ways. First, legal staff may attempt to negotiate a settlement by issuing a consent order. If settlement is unlikely, legal staff may issue an administrative order to an entity. This order contains appeal rights. Lastly, if violations are categorized as significant, a matter may be referred to the Iowa Attorney General for enforcement.

The Legal Services Bureau issued 172 new or amended orders in calendar year 2005, which assessed $468,600 in penalties. The number of orders issued by program are as follows and illustrated by the bar chart below:



Administrative orders are only used to resolve civil violations, never criminal violations. They may be used when DNR assesses penalties of not more than $10,000 for violations of Iowa Code chapters 455B, 459, and 459A or rules, permits, or orders adopted or issued under those chapters. See Iowa Code section 455B.109.

There are two types of administrative orders:

- **Administrative Consent Orders:** These are used when the DNR and the violator are interested in a settlement agreeable to both parties. They usually include a penalty and may also include a Supplemental Environmental Project. By signing the administrative consent order, the violator waives its right to seek a contested case hearing / judicial review of the order under chapter 17A of the Iowa Code.

- **Administrative Orders:** These are an action by the DNR Director and are issued without negotiations with the violator. They may require a violator to perform certain actions and usually include a penalty. These orders are subject to a contested case hearing / judicial review under chapter 17A of the Iowa Code.

In addition, 19 cases were referred to the Iowa Attorney General in 2005. Referrals by program are:

- Animal Feeding Operations: 7
- Air Quality: 2
- Underground Tanks: 6
- Wastewater: 3
- Solid Waste/Air Quality: 1

Legal and Field Services

The effectiveness of a formal legal action must be ensured by following through with collection of a penalty and/or enforcing compliance actions.

Administrative penalty money collected for most programs is returned to the state's general fund for re-appropriation as the legislature decides. Penalties collected from the animal feeding operations program goes back to fund that program.

However, DNR field staff are often able to work with people to resolve problems before legal action is necessary. In 2005, DNR staff in ESD field offices logged 40,033 activities. That includes investigations, responding to complaints, responding to spills and fish kills, attending public meetings, providing technical assistance and conducting more than 10,000 inspections. In all that activity, the field staff only issued 1,633 notices of violation, or NOVs. In comparison, only about 10 percent of those NOVs resulted in an administrative order. That means that less than .04 percent of activities resulted in an NOV, and less than .004 percent of activities resulted in an administrative order.

Collected Legal Penalties

calendar year 2005

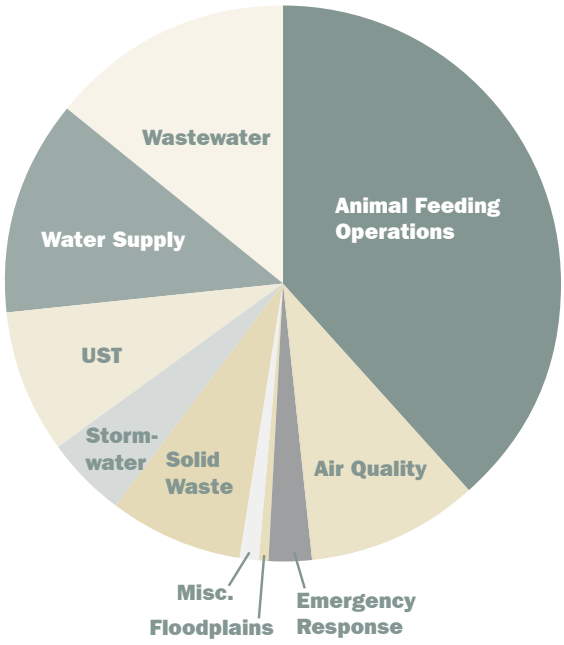
	Assessed	Paid/Collected
AFO	$102,375.00	$160,680.85*
AQ	$95,700.00	$100,694.37*
CS	$4,220.00	$0.00
SW	$63,950.00	$54,858.74
UT	$107,340.00	$40,571.62
WS	$35,515.00	$7,845.00
WW	$59,500.00	$36,946.34
Totals	**$468,600.00**	**$411,697.92**

* Some of the penalty money collected in 2005 was for penalties owed to the DNR prior to 2005.

Paid Penalties

	2002	2003	2004	2005
Jan	31,592.00	29,600.00	17,015.00	16,063.00
Feb	10,600.00	9,063.00	18,627.00	10,935.00
Mar	11,250.00	33,490.00	33,750.00	24,085.00
Apr	31,250.00	29,700.00	24,265.00	41,910.00
May	37,063.00	27,170.00	48,222.00	39,595.00
Jun	84,102.00	16,600.00	48,950.00	28,107.00
Jul	29,905.00	10,800.00	29,675.00	33,690.00
Aug	25,500.00	30,850.00	44,270.00	32,407.00
Sep	11,050.00	59,000.00	35,300.00	30,935.00
Oct	11,108.00	41,650.00	25,467.00	25,115.28
Nov	11,775.00	24,590.00	45,400.00	77,575.39
Dec	16,983.00	40,749.00	13,955.00	51,280.25
TOTALS	**$312,178.00**	**$353,262.00**	**$384,896,00**	**$411,697.92**

2005 Field Staff Activities



Looking Forward

2005 was the beginning of a new focus for the ESD. Reorganization, streamlining of processes, and increased accountability have been developed as new emphases. The citizens of Iowa should see improved response times to their environmental concerns and consistency of response as well. We can all look forward to quantified environmental improvement in the coming year. All of these changes help create and encourage a united effort between the public and the DNR to work toward a healthful and safe state in which to live, work and play.

For more information:

Ed Tormey
DNR Legal Services Bureau
(515) 281-8973
Ed.Tormey@dnr.state.ia.us

Barb Lynch
DNR Field Office and Compliance Bureau
(712) 260-1728
Barbara.Lynch@dnr.state.ia.us

DNR Enforcement Goals for 2006

Goal 1

Improve the measurements of environmental improvement achieved through enforcement. 2006 will see the development of a format and system for tracking environmental improvement achieved through enforcement actions. The focus, as always, is on an improved environment. Program personnel have begun to collect data to measure actual environmental impact and improvement which results from compliance and enforcement measures. These measurements and results will appear in later reports.

Goal 2

Resolve existing contested cases. The DNR began 2005 with approximately 200 administrative appeals in various stages of resolution. That number was reduced to 110 as of December 31, 2005. The goal is to resolve cases existing (as of January 1, 2006) by the end of 2006. Resolution may include negotiating a settlement, or setting the appeal for administrative hearing.